

Weekly Report

2018.1203-2018.1209

1.This Week

Deep Learning Power Grid Project:

1.We compute the Pearson correlation coefficient between buses to see whether the correlation changes when the fault happens on different buses. We made the following finds:

- We can find groups of buses shares high correlation coefficient while other groups with low correlation.
- Because the amount of data is too large, we can barely tell whether the correlation changes. So we are adding this function to our simple interactive system to examine this problem.

2.We find the reason why there exists common clusters and individual clusters, and also the reason why nearby data instances belong to different clusters: that's all because the clustering algorithm. It limits the number of points in each cluster and clustering in a merging way.

3.We are further examining that how many buses can a fault center affect and the correlations between this group of buses.

Power flow Project

1.The progress of this project:

- A simple demo version is finished (with original dataset and statistics added).
- Next monday I'll record a video and send it to Huang and talk about it.

2.Yuhui and I are working on the technical report. There is only one section left: the one that introduces our system. I plan to finish it the next week.

Southern Power Grid Project

1.We listened to the report of the developing system presented by the outsource company.

2.We use the big screen system and the old system of southern power grid to learn their business and data.

3.We organize our problems about their business and data, and solved these questions by asking Kaihong. We also discuss with him about what we can do and what is of great value.

4.I've sent all my record to Fei Zhijun and ask him to arrange into documents.

Working Hour: (except nap and eat time)

9 hours on Friday

4 hours / weekend day

Went to Guangzhou during Monday - Thursday

Other

- 1.Learn about basic reinforcement learning ideas.
- 2.Talk to Lu Jinxuan about the power grid projects and she's interested.

2.Progress

Work	Deadline	Progress
Power grid paper with Deeping learning	-	1.Have interesting findings for the dataset.
SQC Paper	-	1.Delayed
Power Flow Project	December	1.Finish the system demo of the project. 2.The technical report are nearly finished(except the section that introduces the system prototype).